

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A medium access device capable of writing information in a logical storage space of a storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses;

the medium access device having an address limit memory containing at least a value for a parameter indicating the maximum value of the logical addresses of the storage locations in the said first storage layer;

the medium access device comprising means for changing the

maximum value in said address limit memory.

2.(Previously Presented) The medium access device according to claim 1, adapted to compare the logical address of the current block with the maximum value stored in the address limit memory while writing in said first storage layer and, if the result of this comparison shows that the maximum value has been reached for said first storage layer, to make a transition to the first available block in the next storage layer.

3.(Previously Presented) The medium access device according to claim 1, adapted to store the maximum value in the address limit memory and to write the maximum value to a predetermined storage location of said storage medium.

Claim 4 (Canceled)

5.(Previously Presented) A medium access device capable of writing information in the logical storage space of a storage medium, having two or more layers of physical storage locations,

each storage location having a physical address, the physical storage space comprising a logical storage space which contains storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the storage medium having at least one predetermined storage location for containing a value for a parameter indicating the maximum value of the logical addresses of the storage locations in the said first storage layer, the medium access device being adapted to read the maximum value from said predetermined storage location, to store the maximum value in an address limit memory of the medium access device, and to change the maximum value so that a transition from said first storage layer to a next storage layer corresponds to a video cell boundary.

6. (Previously Presented) A host device capable of cooperating with the medium access device according to claim 1, the host device being adapted to send data to said medium access device, the data containing information to be written on said medium and/or containing instructions for said medium access device;

the host device being adapted to send a limit fix command to said medium access device for instructing said medium access device to store a host-determined value in the address limit memory.

7. (Previously Presented) The host device according to claim 6, adapted to send a video signal to said medium access device, the host device being capable of evaluating the video signal to be written so as to determine where cell boundaries in this video signal are to be expected, to calculate a suitable value for said parameter such that a block for which it holds that a logical address is equal to the maximum value corresponds to a cell boundary, and to send a limit fix command to said medium access device for instructing said medium access device to store said calculated value into the address limit memory.

8. (Previously Presented) The medium access device according to claim 1, capable of cooperating with a host device, the medium access device being adapted to receive a limit fix command from said host device and, in response, to derive the maximum value from said limit fix command and to store the derived maximum value in

the address limit memory.

9. (Previously Presented) A host device capable of cooperating with a medium access device capable of writing information in a logical storage space of a storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses;

the medium access device having an address limit memory containing at least a value for a parameter indicating the maximum value of the logical addresses of the storage locations in the said first storage layer;

the medium access device comprising means for changing the value in said address limit memory;

the host device being adapted to send data to said medium access device, the data containing information to be written on said medium and/or containing instructions for said medium access

device;

the host device being adapted to send a limit fix command to said medium access device for instructing said medium access device to store a host-determined value in the address limit memory;

wherein the host device is further adapted to send a Disc Read Command to said medium access device and to receive a Disc Read Response from said medium access device, indicating whether or not said parameter is changeable by indicating that said parameter has already been set to a certain host-determined value;

the host device being further adapted to avoid sending the limit fix command in response to receiving a Disc Read Response from said medium access device indicating that said parameter cannot be changed.

10. (Previously Presented) A medium access device capable of cooperating with the host device according to claim 9, the medium access device being adapted to receive a Disc Read Command from said host device and, in response, to read the value for said parameter from said predetermined storage location, and to send to the host device a Disc Read Response containing information from

which said parameter can be derived.

11. (Previously Presented) A data storage system comprising:  
a writeable storage medium having a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the physical storage space comprising a logical storage space which contains storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses;

a medium access device capable of writing information in a logical storage space of the writeable storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the medium access device having an address limit memory containing at least a value for a parameter indicating a maximum value of the logical addresses of

the storage locations in the said first storage layer; the medium access device comprising means for changing the value in said address limit memory; and

a host device capable of cooperating with said medium access device.

12. (Previously Presented) The data storage system according to claim 11, comprising a storage medium having a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the physical storage space comprising a logical storage space which contains storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the storage medium having at least one predetermined storage location for containing a value for a parameter indicating a maximum value of the logical addresses of the storage locations in the said first storage layer and a medium access device capable of writing information in the logical storage space of the storage medium the device being adapted to read the value for said



parameter from said predetermined storage location and to store this value in its address limit memory.

13.(Previously Presented) The data storage system according to claim 11, wherein said storage medium is an optical disc, and wherein said medium access device is a disc drive.

14.(Previously Presented) The data storage system according to claim 11, comprising a host device the host device being adapted to send data to said medium access device, the data containing information to be written on said medium and/or containing instructions for said medium access device; the host device being adapted to send a limit fix command to said medium access device for instructing said medium access device to store a host-determined value in its address limit memory and a medium access device adapted to receive a limit fix command from said host device and, in response, to derive the maximum value from said limit fix command and to store the derived maximum value in its address limit memory.

15. (Previously Presented) A data storage system comprising:

a writeable storage medium having a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the physical storage space comprising a logical storage space which contains storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses;

a medium access device capable of writing information in a logical storage space of the writeable storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the medium access device having an address limit memory containing at least a value for a parameter indicating a maximum value of the logical addresses of the storage locations in the said first storage layer; the medium access device comprising means for changing the value in said

address limit memory; and

a host device capable of cooperating with said medium access device and being adapted to send data to said medium access device, the data containing information to be written on said medium and/or containing instructions for said medium access device;

the host device being further adapted to send a limit fix command to said medium access device for instructing said medium access device to store a host-determined value in its address limit memory and a medium access device adapted to receive a limit fix command from said host device and, in response, to derive the maximum value from said limit fix command and to store the derived maximum value in its address limit memory;

wherein said limit fix command is sent as a modified RESERVE TRACK command.

16. (Previously Presented) The data storage system according to claim 15, wherein the value of bit 0 of byte 1 of the RESERVE TRACK command indicates that this command is to be interpreted as a limit fix command, and wherein the bytes 5 to 8 of the RESERVE TRACK command contain the maximum value.

17. (Previously Presented) A data storage system comprising:

a writeable storage medium having a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the physical storage space comprising a logical storage space which contains storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses;

a medium access device capable of writing information in a logical storage space of the writeable storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the medium access device having an address limit memory containing at least a value for a parameter indicating a maximum value of the logical addresses of the storage locations in the said first storage layer; the medium

access device comprising means for changing the value in said address limit memory; and

a host device capable of cooperating with said medium access device and being adapted to send data to said medium access device, the data containing information to be written on said medium and/or containing instructions for said medium access device;

the host device being further adapted to send a limit fix command to said medium access device for instructing said medium access device to store a host-determined value in its address limit memory and a medium access device adapted to receive a limit fix command from said host device and, in response, to derive the maximum value from said limit fix command and to store the derived maximum value in its address limit memory;

wherein said limit fix command is sent as a modified WRITE PARAMETERS PAGE command.

18. (Previously Presented) The data storage system according to claim 17, wherein the value of bit 6 of byte 0 of the WRITE PARAMETERS PAGE command indicates that this command is to be interpreted as a limit fix command, and wherein the bytes 32 to 47

of the WRITE PARAMETERS PAGE command contain the maximum value.

19. (Previously Presented) A data storage system comprising:

a writeable storage medium having a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the physical storage space comprising a logical storage space which contains storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses;

a medium access device capable of writing information in a logical storage space of the writeable storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the medium access device having an address limit memory containing at least a value for a parameter indicating a maximum value of the logical addresses of

the storage locations in the said first storage layer; the medium access device comprising means for changing the value in said address limit memory; and

a host device capable of cooperating with said medium access device and being adapted to send data to said medium access device, the data containing information to be written on said medium and/or containing instructions for said medium access device;

the host device being further adapted to send a limit fix command to said medium access device for instructing said medium access device to store a host-determined value in its address limit memory and a medium access device adapted to receive a limit fix command from said host device and, in response, to derive the maximum value from said limit fix command and to store the derived maximum value in its address limit memory;

wherein said limit fix command is sent as a modified SEND DVD STRUCTURE command.

20. (Previously Presented) The data storage system according to claim 19, wherein value 20h for byte 7 indicates that the SEND DVD STRUCTURE command contains 17 bytes, and that bytes 14-16

contain the maximum value.

21. (Previously Presented) A data storage system comprising:  
a writeable storage medium having a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the physical storage space comprising a logical storage space which contains storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses;

a medium access device capable of writing information in a logical storage space of the writeable storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the medium access device having an address limit memory containing at least a value for a parameter indicating a maximum value of the logical addresses of



the storage locations in the said first storage layer; the medium access device comprising means for changing the value in said address limit memory; and

a host device capable of cooperating with said medium access device and being adapted to send a Disc Read Command to said medium access device and to receive a Disc Read Response from said medium access device, indicating whether or not said parameter is changeable by indicating that said parameter has already been set to a certain host-determined value;

the host device being further adapted to avoid sending the limit fix command in response to receiving a Disc Read Response from said medium access device indicating that said parameter cannot be changed and a medium access device , the access device being designed adapted to receive a Disc Read Command from said host device and, in response, to read the value for said parameter from said predetermined storage location, and to send to the host device a Disc Read Response containing information from which said parameter can be derived.

22. (Previously Presented) The data storage system according

to claim 21, wherein said Disc Read Command is sent as a modified READ DVD STRUCTURE command.

23. (Previously Presented) The data storage system according to claim 22, wherein value 20h for byte 7 indicates that the modified READ DVD STRUCTURE command is to be taken as a Disc Read Command.

24. (Previously Presented) The data storage system according to claim 21, wherein said Disc Read Response is sent as modified Read DVD Structure Data.

25. (Previously Presented) The data storage system according to claim 24, wherein bytes 2 4 of a "DVD Lead-in Structure" field are used to convey information indicating whether or not said parameter is changeable.

26. (Previously Presented) A system comprising:  
a disc drive configured to read from a storage medium a maximum value of logical addresses of the storage medium, and to

store the maximum value in a memory of the disc drive, the storage medium having a first storage layer and a second storage layer;

a host device configured to provide data organized in cells for writing the data on the storage medium and to determine cell boundaries of the cells, the host device being further configured to determine a desired maximum value of the logical addresses so that a transition from the first storage layer to the second storage layer corresponds to a video cell boundary, and to provide the desired maximum value to the disc drive for changing the maximum value stored in a memory to the desired maximum value.

27. (Previously Presented) The system of claim 26, wherein the disc drive further configured to store the desired maximum value on the storage medium.

28. (Previously Presented) The system of claim 26, wherein the host device is further configured to determine a desired address value for a last logical address in the first storage layer so that a transition from the first storage layer to the second storage layer corresponds to a video cell boundary, and wherein the disc

drive is further configured to determine the desired maximum value from the desired address value.